

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings of claims in the application.

LISTING OF CLAIMS:

What is claimed is:

1 1. (Currently Amended) A method for operating an I/O
2 coupling channel of a computer system, comprising the steps
3 of:

4 ~~Providing~~ providing a plurality of modes for said
5 coupling channel having a first new high function mode and
6 a second old compatibility mode for intersystem coupling of
7 computer systems which is addapted to be used with a
8 collection of computer systems some of which have new high
9 function mode channels and other of which computer systems
10 which have old compatability mode channels, wherein is
11 included including:

12 A said first new high function mode for said coupling
13 channel and enabling said first new function mode for
14 operating as a new peer mode with respect to its attached
15 channel at the opposite end of a link; and

16 ~~an~~ said second old compatibility mode for said
17 coupling channel and enabling said second old compatibility
18 mode operating through a converter having multiple sink
19 ports to multiple sender and/or receiver channels connected
20 at the opposite end of the converter's multiple sink ports,
21 and then

22 operating ~~the~~ said coupling channel when said new peer
23 mode is directly connected to another identical channel
24 operating in the same said new peer mode, and

25 providing when said first high function mode is
 operating the first high function mode a peer operation

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2 with many times more message passing facilities than said
3 second old compatibility mode.

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2. (Currently Amended) The method as recited in claim 1,
1 wherein ~~the~~ said coupling channel operating in the new peer
2 mode uses all of its message passing resources to exchange
3 the maximum number of messages concurrently ~~as possible~~.

4

5 3. (Currently Amended) The method as recited in claim 1
6 2, wherein when required, said coupling ~~the~~ channel
7 operates in a said second old compatibility mode and said
8 coupling channel is attached to a converter that allows
9 further attachment of said coupling channel to a plurality
of older systems' channels and said second mode old
1 compatibility mode is used to connect the first high
2 function mode channels through said converter to multiple
3 second old compatibility mode channels.

4

5 4. (Currently Amended) The method as recited in claim 1
6 3, wherein when said coupling ~~the~~ channel is operating in
1 said second old compatibility mode said coupling channel
2 divides its message passing resources among ~~the~~ said
3 multiple sink ports of said converter.

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5. (Currently Amended) The method as recited in claim 5
5 4, wherein said converter comprises the functions:

6

keeps no state information;

7

adjusts differences in line speeds between ~~the~~ a
source and said multiple sink ports;

1

routes outbound packets to the correct sink port; and

2

adds source information to inbound packets.

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5 6. (Original) The method as recited in claim 1, wherein
6 when said coupling the channel is operating in said second
7 old ~~comparability~~ compatibility mode said coupling channel
appears to ~~the~~ coupling software controlling transmissions
1 over said coupling channel as a plurality of independent
2 channels operating in ~~the~~ said second old compatibility
3 mode.

4
5 7. (Currently Amended) The method as recited in claim—7
6 6, wherein when said coupling the channel is operating in
7 the said second old compatibility mode said converter
8 converts from a new coupling channel interface by
9 processing ~~processes~~ commands from the said coupling
software giving the illusion of multiple separate old
1 channels while said converter keeps no state information
2 and only adjusts line speeds, routes outbound packets, and
3 adds source information to inbound packets.

4
5 8. (Currently Amended) The method as recited in claim 7,
6 wherein when said coupling the channel is operating in the
7 said second old compatibility mode said coupling channel
presents interruption, busy, state, and error information
1 to the coupling software while giving the illusion of
2 having a plurality of separate channels operating in ~~the~~
3 said second old compatibility mode.

4
5 9. (Currently Amended) The method as recited in claim ~~1~~
6 8, wherein while said coupling the channel is operating in
the said second old compatibility mode said coupling
channel provides a plurality of independent sequence
numbers, one pair for each of said multiple sink ports
~~converter sink port.~~